

Notice of Allowability

Application No.

10/663,328

Examiner

Ryan M. Stiglic

Applicant(s)

SHRADER ET AL.

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2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments filed December 19, 2005.
2. ☒ The allowed claim(s) is/are 1-5, 8-10, 12 and 15-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Claims 1-5, 8-10, 12 and 15-21 are pending and have been examined.
2. Claims 1-5, 8-10, 12 and 15-21 are allowed.

Drawings

3. The drawings were received on December 27, 2005. These drawings are accepted.

Response to Arguments

4. The rejection of claim 11 under 35 U.S.C. § 112, first paragraph, has been withdrawn in light of cancellation of claim 11.
5. The rejection of claim 14 under 35 U.S.C. § 112, second paragraph, has been withdrawn in light of cancellation of claim 14.
6. Applicant's arguments, see pages 12-14, filed December 19, 2005, with respect to claims 1-5, 8-10, 12 and 15-21 have been fully considered and are persuasive. The rejections of claims 1-5, 8-12 and 15-21 have been withdrawn. As such the instant application is now in condition for allowance.

Allowable Subject Matter

7. The following is an examiner's statement of reasons for allowance:

The Examiner has done a thorough search and found no prior art of record, alone or in combination, that teaches or fairly suggests the limitations, "defining at least one statistics

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window having a beginning time and an ending time, wherein the statistics window defines a period of time that bandwidth utilized by a port is recorded” and “increasing the beginning time of the statistics window and the ending time of the statistics window by an amount of time equal to the reporting window.” The Examiner understands defining and updating beginning and ending times of a statistics window to refer to specification paragraphs [0029-0030] (as defined by applicant on page 13 of applicant’s remarks filed December 19, 2005) and paragraphs [0026, 0036]. The later cited paragraphs relate to maintaining and resetting a plurality of counters representative of statistic windows. It is these counters the Examiner feels most accurately provided enablement for the limitations cited above.

With regards to prior art the Examiner has cited various references pertaining to throttling memory and bus transactions. Kahn et al. (US006662278B1) defines a system and method for throttling memory transactions that exceed a prescribed bandwidth. Applicant’s allege, “The Kahn patent does not disclose denying access to the port during the next reporting window if the amount of bandwidth used during the statistics window is greater than the bandwidth limit (page 13 of remarks dated December 19, 2005)” and the Examiner agrees. Applicant is correct in that “...the Kahn patent teaches allowing the access to the memory to continue if the bandwidth exceeds the bandwidth limit (page 13 of remarks dated December 19, 2005).” Furthermore, column 7, lines 38-42 of Kahn teach allowing memory accesses to exceed the bandwidth limit (effectively ignoring the mask) until the lowest mask is selected. As such Kahn can not be shown to teach and/or suggest each and every limitation of the claimed invention.

Bergeson et al. (US006784890B1) teaches a different system and method for throttling expedite transactions (cycles). Bergeson however teaches away from applicant's invention in that the system of Bergeson permits the saturation of non-expedite cycles. For instance figure 4b (column 6, line 57 – col. 7, line 10) shows that a monitoring window has been established to limit the number of clock cycles dedicated to expedite transaction to 400. Contrary to applicant's invention the monitoring window encourages the saturation of non-expedite cycles because after the monitoring window of figure 4b determines that the guaranteed 100 cycles of non-expedite transactions has occurred the monitoring window is reset thus allowing another 100 cycles of non-expedite transactions to occur. As can be seen this creates a potentially harmful situation in that repetitive bursts of non-expedite transactions at the beginning of a plurality of monitoring windows causes the resource to be saturated with non-expedite transactions. As such Bergeson is not shown to deny access to the resource during the next reporting window if bandwidth limit has been exceeded.

Lyon et al. (US006028841A) teaches a system and method for distributed bus throttling. A bus observation, compensation filter, control function and throttle circuits define a statistic window of finds in that master devices limit the amount of data they transmit onto a shared bus in-order to adhere to bandwidth limitations. The key difference between applicant's invention and the invention of Lyon is that applicant's invention is a centralized solution for throttling transactions of a shared resource. Any attempts to modify the invention of Lyon to create a centralized bus throttle would destroy the teachings of Lyon. Lyon distinctly teaches bus occupancy is controlled by each originating source and does not suggest modifying their

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invention into a centralized bus throttle. As such Lyon is not shown to each and every limitation of the claimed invention.

The remaining prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Belissent (US006799276B1), Nizar et al. (US006470238B1), Bogin et al. (US005953685A), Williams et al. (US006507530B1 and US006772352B1), Moss (US006741096B2) and Chrysos et al. (US006324616B2) teach various systems for throttling transactions or instructions in-order to maintain system stability.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

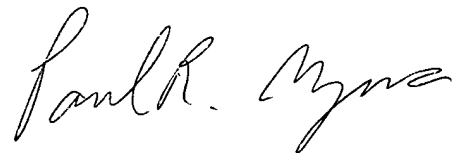
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M. Stiglic whose telephone number is 571.272.3641. The examiner can normally be reached on Monday - Friday (6:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571.272.3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMS

A handwritten signature in black ink, appearing to read "Paul R. Myers". The signature is fluid and cursive, with the first name "Paul" and last name "Myers" clearly distinguishable.

PAUL R. MYERS
PRIMARY EXAMINER